Claims

[c1]   Amethod for configuring a system having a plurality of
processors to provide the system with at least one clus-
ter of processors, each cluster having one service point,
the method comprising the steps of:

computing a distance from each processor to other pro-
cessors in the system;

computing a plurality of total distances, where each total
distance is associated with one processor;

determining a minimum total distance from the plurality
of total distances; and

assigning as the service point the processor having the
minimum total distance associated therewith.

[c2]   2A thod according to claim 1, further comprising the
step of partitioning the system into a plurality of clus-
ters.

[c3]   3.A hod according to claim 2, wherein said partitioning
further comprises:

sorting the processors in accordance with the total dis-
tance associated with each processor;

assigning each processor to one of two clusters;

determining a minimum total distance for the processors

in each cluster in accordance with the plurality of total distances associated with the processors in said cluster; and

assigning as the service point for each cluster the processor having the minimum total distance associated therewith in said cluster.

[c4]   4.mA od according to claim 3, further comprising the steps of:

subdividing one of said two clusters into two subdivided clusters, thereby partitioning the system into three clusters;

determining a minimum total distance for the processors in each of said three clusters in accordance with the plurality of total distances associated with the processors in said three clusters;

assigning the processors to said three clusters in accordance with the minimum total distance; and

assigning as the service point for each of said three clusters the processor having the minimum total distance associated therewith in said cluster.

[c5]   5.meA od according to claim 1, wherein the processors are of different types, and the processors are assigned to clusters in accordance therewith.

[c6]   6.meA od according to claim 1, wherein said configuring

is performed dynamically when a processor is added to the system.

[c7] 7.meA d according to claim 1, wherein said configuring is performed dynamically when a processor is removed from the system.

[c8] 8.ethA maccording to claim 7, wherein the partitioning of the system is dynamically changed when a processor is removed from the system.

[c9] 9. ethA mccording to claim 1, further comprising the step of assigning another processor as a backup service point.

[c10] 10.mpuA compudable storage medium having stored therein instructions for performing a method for config-uring a system having a plurality of processors to pro-vide the system with at least one cluster of processors, each cluster having one service point, the method com-prising the steps of:
computing a distance from each processor to other pro-cessors in the system;
computing a plurality of total distances, where each total distance is associated with one processor;
determining a minimum total distance from the plurality of total distances; and

assigning as the service point the processor having the minimum total distance associated therewith.